

B1
Cont

a first coating layer having crystallinity, and a first surface and an opposite surface defined as a second surface of the first coating layer with crystal size within the first coating layer increasing in a direction from the first surface of the first coating layer toward the second surface of the first coating layer;

a second coating layer having crystallinity, and a first surface and an opposite surface defined as a second surface of the second coating layer with the first surface of the second layer in facing relationship to the second surface of the first layer and with crystal size within the second layer increasing in a direction from the first surface of the second layer toward the second surface of the second layer, and

at least one breaker layer between the second surface of the first layer and the first surface of the second, the breaker layer configured to interrupt growth of crystal structure of the second layer whereby the size of the crystals of the second layer are reduced as a result of inhibiting the growth of the crystals of the second layer on the second surface of the first layer.

B2

2. (Amended) The coating according to claim 1, wherein the breaker layer is substantially amorphous.

3. (Amended) The coating according to claim 1, wherein at least one of the first and second coating layers comprises at least one metal oxide and at least one dopant.

6. (Amended) A coating over a portion of a surface of a substrate, the coating, comprising:

B3

a substantially crystalline first layer having a first surface and an opposite surface defined as a second surface of the first layer with crystal size within the first layer increasing in a direction from the first surface of the first layer toward the second surface of the first layer;

a substantially crystalline second layer deposited over the first layer, the second layer having a first surface and an opposite surface defined as a second surface of the second layer with the first surface of the second layer in facing relationship to the second surface of the first layer and with

crystal size within the second layer increasing in a direction from the first surface of the second layer toward the second surface of the second layer, and

B3 Cont
a breaker layer between the first and second layers, the breaker layer configured to prevent or at least reduce epitaxial growth of crystals at the first surface of the second layer on the crystals at the second surface of the first layer.

16. (Amended) A coating over a portion of a surface of a substrate, the coating, comprising:

a substantially crystalline first layer comprising antimony doped tin oxide, the first layer having a thickness of about 1200 Å to about 2300 Å, and having a first surface and an opposite surface defined as a second surface of the first layer with crystal size within the first layer increasing in a direction from the first surface of the first layer toward the second surface of the first layer;

B4
a substantially crystalline second layer deposited over the first layer, the second layer comprising fluorine doped tin oxide and having a thickness of about 3000 Å to about 3600 Å and having a first surface and an opposite surface defined as a second surface of the second layer with the first surface of the second layer in facing relationship to the second surface of the first layer and with crystal size within the second layer increasing in a direction from the first surface of the second layer toward the second surface of the second layer, and

a breaker layer between the first and second crystalline layers, the breaker layer configured to prevent or at least reduce epitaxial growth of crystals at the first surface of the second layer on the crystals at the second surface of the first layer.

18. (Twice Amended) A coated article, comprising:

a substrate; and

B5
a coating deposited over at least a portion of the substrate, the coating comprising:

B5
Cnd

a first coating layer having crystallinity, and a first surface and an opposite surface defined as a second surface of the first coating layer with crystal size within the first coating layer increasing in a direction from the first surface of the first coating layer toward the second surface of the first coating layer;

a second coating layer having crystallinity, and a first surface and an opposite surface defined as a second surface of the second coating layer with the first surface of the second layer in facing relationship to the second surface of the first layer and with crystal size within the second layer increasing in a direction from the first surface of the second layer toward the second surface of the second layer, and

at least one breaker layer between the second surface of the first layer and the first surface of the second, the breaker layer configured to interrupt crystal structure of the coating whereby the size of the crystals at the second surface of the first layer are larger than size of the crystals at the first surface of the second layer.

19. (Amended) The coated article according to claim 18, wherein the breaker layer is substantially amorphous.

B6

20. (Amended) The coated article according to claim 18, wherein the first coating layer comprises at least one metal oxide.

21. (Amended) The coated article according to claim 20, wherein the first coating layer further comprises at least one dopant.

B7

22. (Twice Amended) The coated article according to claim 18, wherein the second layer comprises at least one metal oxide.

B8

23. (Amended) The coated article according to claim 22, wherein the second layer further comprises at least one dopant.

24. (Amended) The coated article according to claim 18, wherein the breaker layer comprises at least one metal oxide and phosphorous.

25. (Amended) The coated article according to claim 18, wherein the breaker layer comprises at least one metal oxide and silicon.

26. (Amended) A coated article, comprising:

a substrate;

a substantially crystalline first layer deposited over at least a portion of the substrate, the first layer having a first surface and an opposite surface defined as a second surface of the first layer with crystal size within the first layer increasing in a direction from the first surface of the first layer toward the second surface of the first coating layer;

a breaker layer deposited over the second surface of the first layer; and

a substantially crystalline second layer deposited over the breaker layer, the second layer having a first surface and an opposite surface defined as a second surface of the second layer with the first surface of the second layer in facing relationship to the second surface of the first layer and with crystal size within the second layer increasing in a direction from the first surface of the second layer toward the second surface of the second layer,

wherein the breaker layer is configured to inhibit epitaxial growth of the second crystalline layer on the first crystalline layer.

41. (Amended) A coated article, comprising:

a substrate;

a substantially crystalline layer deposited over at least a portion of the substrate, the layer having a first surface and an opposite surface defined as a second surface of the layer with crystal size within the layer increasing in a direction from the first surface of the layer toward the second surface of the layer; and

B9
Cont

a breaker layer deposited over at least a portion of the second surface of the layer, the breaker layer configured to prevent or at least reduce epitaxial growth from initiating on the second surface of the layer.

B10

44. (Amended) The article as claimed in claim 42, including a second substantially transparent, conductive metal oxide layer deposited over the first conductive metal oxide layer, wherein the second conductive metal oxide layer has a thickness of about 0Å to about 3000Å, wherein the second conductive metal oxide layer is fluorine doped tin oxide, and wherein the thickness of the second layer is proportional to the thickness of the first layer.

B11

46. (Amended) A coated article, comprising:
a substrate;
a first doped metal oxide layer deposited over at least a portion of the substrate, the first doped metal oxide having an index of refraction; and
a second doped metal oxide layer deposited over the first doped metal oxide layer, the second doped layer having an index of refraction wherein the index of refraction of the first doped metal oxide layer is lower than the index of refraction of the second doped metal oxide layer.

B12

49. (Amended) A coated article, comprising:
a substrate;
a color suppression layer deposited over at least a portion of the substrate;
a substantially crystalline first layer deposited over the color suppression layer, the first layer having a first surface and an opposite surface defined as a second surface of the first layer with crystal size within the first layer increasing in a direction from the first surface of the first layer toward the second surface of the first coating layer wherein the first surface of the first layer is over the color suppression layer;
a substantially crystalline second layer deposited over the first layer, the second layer having a first surface and an opposite surface defined as a second surface of the second layer with the first surface of the second layer in facing relationship to the second surface of the first layer and with

B12
Cont

crystal size within the second layer increasing in a direction from the first surface of the second layer toward the second surface of the second layer, and

a breaker layer between the first and second layers, the breaker layer configured to prevent or reduce epitaxial growth of the first surface of the second layer on the second surface of the first layer.

58. (Twice Amended) A coated article comprising:

a substrate;

B13

a first coating region deposited over at least a portion of the substrate, the first coating region comprising a metal oxide and a first dopant, the first coating region having a first surface and an opposite surface defined as a second surface of the first coating region with crystal size within the first the first coating region increasing in a direction from the first surface of the first coating region toward the second surface of the first coating region wherein the first surface of the first coating region is over the substrate;

a transition region deposited over the first region, the transition region comprising a metal oxide, the first dopant, and a second dopant, with the ratio of the first dopant to the second dopant constantly changing as the distance from the substrate changes wherein, the transition region has a first surface and an opposite surface defined as a second surface of the transition region with crystal size within the transition region increasing in a direction from the first surface of the transition region toward the second surface of the transition region wherein the first surface of the transition region is over the second surface of the first coating region;

a second coating region deposited over the transition region, the second coating region comprising a metal oxide and the second dopant, the second coating region having a first surface and an opposite surface defined as a second surface of the second coating region with crystal size within the second coating region increasing in a direction from the first surface of the second coating region toward the second surface of the coating region wherein the first surface of the second coating region is over the second surface of the transition region, and

B13
Caf

at least one breaker layer located between at least one of the following groups to prevent or reduce epitaxial growth between the at least one of the following groups: (a) the second surface of the first region and the first surface of the transition region, or (b) the second surface of the transition region and the first surface of the second region.

59. (Amended) A method of coating a substrate, comprising the steps of:

depositing a substantially crystalline first layer over at least a portion of a substrate, the first layer having a first surface and an opposite surface defined as a second surface of the first coating layer with the first surface of the first layer over the substrate and with crystal size within the first layer increasing in a direction from the first surface of the first layer toward the second surface of the first layer;

depositing a breaker layer over the second surface of the first layer; and

depositing a substantially crystalline second layer over the breaker layer,

B14

the second layer having a first surface and an opposite surface defined as a second surface of the second layer with the first surface of the second layer over the breaker layer and with crystal size within the second layer increasing in a direction from the first surface of the second layer toward the second surface of the second layer, wherein

the breaker layer is configured to prohibit or reduce epitaxial growth of the second crystalline layer on the first crystalline layer.

60. (Amended) A method of coating a substrate, comprising the steps of:

depositing a substantially crystalline layer over at least a portion of a substrate, the layer having a first surface and an opposite surface defined as a second surface of the layer with crystal size within the layer increasing in a direction from the first surface of the layer toward the second surface of the layer, and

depositing a breaker layer over the second surface of the crystalline layer, wherein the breaker layer is configured to prevent or at least reduce epitaxial growth from initiating on the second surface of the first crystalline layer.

61. (Amended) A method of forming a coated article, comprising the steps of:

providing a substrate;

depositing a color suppression layer over at least a portion of the substrate, the color suppression layer having a thickness of about 50Å to about 3000Å;

depositing a first substantially transparent conductive metal oxide layer over the color suppression layer, the first conductive metal oxide layer comprising antimony doped tin oxide having a thickness of about 700Å to about 3000Å; and

depositing a second, substantially transparent, conductive metal oxide layer over the first conductive metal oxide layer, the second conductive metal oxide layer comprising fluorine doped oxide having a thickness of about 0Å to about 3000Å, with the thickness of the second layer being substantially proportional to the thickness of the first layer.

B17
Cont